

***Ammannia robusta*** Heer and Regel

grand red stem  
Lythraceae (Loosestrife Family)

**Status:** State Threatened

**Rank:** G5S1

**General Description:** Annual wetland herb 4 to 40 in. (1 to 10 dm) tall. The morphology of the plant may be highly variable: stems can be erect to decumbent and solitary to branched. The linear leaves are opposite and sessile, and the basal leaves are ear-shaped. The inconspicuous, radially symmetrical flowers are found in axillary clusters. The pale lavender flowers are approximately 1/3 in. (3-4 mm) long with pale yellow anthers. There are 4 stamens that project beyond the bell- to urn-shaped hypanthium, as does the style. The fruit is more or less spheric and irregularly dehiscent.

**Identification Tips:** *Ammannia robusta* is the only member of its genus known to occur in Washington. The most significant diagnostic characteristics are the pale lavender flowers and pale yellow anthers.

**Phenology:** Flowers May-June.

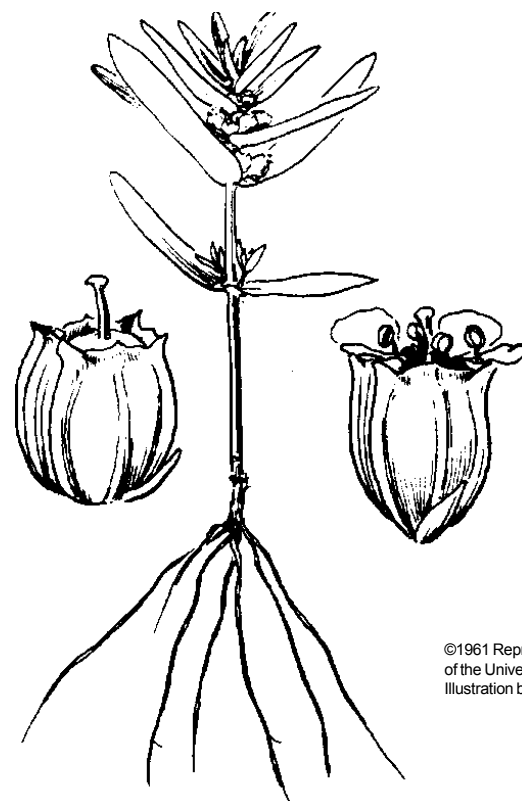
**Range:** This species is found from central western Canada down to California and from central United States to Mexico. In Washington, this species is found in Benton, Grant and Franklin counties and was historically known from Klickitat and Whitman counties along the Columbia and Snake rivers. This species is found growing on the shoreline and islands along the Columbia River.

**Habitat:** In Washington, the species is found along the Columbia River in riparian mudflat wetlands dominated by annual species. It is found in fine sandy and silty soils, and sometimes in silt between large river cobbles around ponds, rivers and other wet places. It grows in association with toothcup (*Rotala ramosior*), awned halfchaff sedge (*Lipocarpa aristulata*), shining flatsedge (*Cyperus bipartitus*), southern mudwort (*Limosella acaulis*), yellow-seed false-pimpernel (*Lindernia dubia*) and occasionally with Columbia yellow-cress (*Rorippa columbiae*).

**Ecology:** This species occurs in riverine emergent wetland communities growing in areas that are inundated until mid-summer and periodically throughout the growing season, depending on upstream management of the river. This habitat type was once widely distributed along the Columbia and Snake rivers, but inundation due to hydroelectric

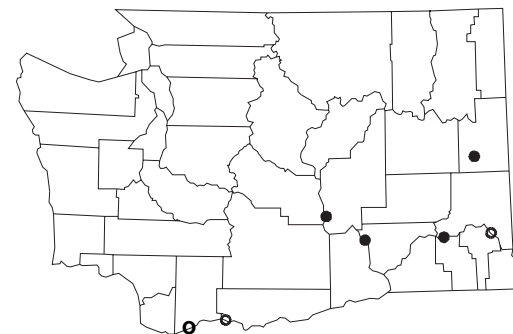
***Ammannia robusta***

grand red stem



©1961 Reprinted by permission  
of the University of Washington Press.  
Illustration by Jeanne R. Janish

Known distribution of  
*Ammannia robusta*  
in Washington



● Current (1980+)  
○ Historic (older than 1980)

***Ammannia robusta***

grand red stem



Photo by Devin Malkin



Photo by Devin Malkin

***Ammannia robusta***

grand red stem

development has dramatically reduced the extent and quality of these wetlands.

**State Status Comments:** Two historic collection sites in Washington are now behind dams. One site is now permanently inundated, while the status of the other is unknown. One extant population contains 16 sub-populations with several hundred plants in each. These plants are growing with good vigor along the Hanford Reach on the Columbia River. Another small population occurs upstream of the Hanford Reach.

**Inventory Needs:** Free-flowing sections of other major eastern Washington rivers and backwater areas along reservoirs should be inventoried for this species.

**Threats and Management Concerns:** This species is highly vulnerable to hydrologic changes and invasion by exotic species, such as purple loosestrife (*Lythrum salicaria*). Flooding by hydroelectric developments constitutes another threat to *Ammannia robusta*.

**Comments:** *Ammannia coccinea* was applied to our Washington plants by Hitchcock et al. (1961). However, later taxonomists determined that our plants are *A. robusta*. There is no description for *A. robusta* in Hitchcock et. al (1961), however the description for *A. coccinea* may be used. For a technical key refer to *The Jepson Manual* (1993).

**References:**

- Hitchcock, C.G. A. Cronquist, M. Ownbey and J.W. Thompson. 1961. *Vascular Plants of the Pacific Northwest, Part 3: Saxifragaceae to Ericaceae*. University of Washington Press, Seattle, WA. 614 pp.
- Hickman, J.C. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press, Berkeley. 1400 pp.